

REMARKS

Claims 1-13 are currently pending in the present Application.

Section 112, Second Paragraph Rejections: Claims 1, 4, 7, 10 and 13 stand rejected under 35 U.S.C. § 112, second paragraph as indefinite due to a variety of claim wording issues.

The Applicant has amended independent claims 1, 7 and 13, solely for clarity and without intent to alter the scope of the claims, to recite a “bore body member,” in order to make clear that the “bore body” originally recited in the claims is the throttle body member which contains the throttle bore. These amendments also address the antecedent basis issue in the dependent claims. In addition, the Applicant has eliminated the parenthetical phrases from claims 1 and 10. Withdrawal of the pending §112, second paragraph rejections is respectfully requested.

Abstract Objection: The Applicants have revised the Abstract to conform to the required form. Withdrawal of the pending Abstract objection is respectfully requested.

Claim Rejections Under § 102(e): Claims 1-13 stand rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 6,725,833 B1 to Irihune, *et al.* (“Irihune”), and as anticipated by U.S. Patent No. 6,681,742 to Hirayama, *et al.* (“Hirayama”). The Applicant respectfully traverses these rejections on the grounds that these references fail to disclose all the features of the present invention recited in the pending claims.

The present invention is directed to a throttle body device in which, inter alia, an engine control unit is provided on a base member other than the body

member containing the throttle bore (the “bore body”) and the engine control unit’s base member is located on the throttle bore body member *with nothing in between to inhibit heat transfer from the engine control unit circuits to the bore body*. For clarity, the Applicant has amended the claims to expressly emphasize this latter feature: “wherein the base is disposed on the bore body such that no electrical or mechanical components are located between the engine control unit electronic circuit and a surface of the bore body receiving the engine control unit base.”

Unlike the prior art, the present invention deliberately takes advantage of the inherently high heat capacity of the bore body of the throttle body to enhance heat transfer from the engine control electronics – and does so with arrangements with provide production advantages, as described in the present specification at pp. 1-2 (prior art production problems) and 10-11 (production/assembly advantages).

In contrast, Irihune discloses a throttle body assembly in which its electronics components are *isolated* from the bore body member, either by placing the electronics (11) on the outside of an air flow meter housing (45) (Irihune Fig. 1), or under the outer surface of a housing cover (10A) containing a variety of throttle position transmission gears and other components arranged on the throttle body. Thus, rather than teaching location of engine control electronics to make use of the high-heat capacity of the bore body, Irihune’s remote electronics mounting teaches away from the present invention’s base “disposed on the bore body such that no electrical or mechanical components are

located between the engine control unit electronic circuit and a surface of the bore body receiving the engine control unit base.”

Hirayama similarly fails to disclose the present invention. This reference discloses a “control module 2” which: (i) is not an engine control unit; and (ii) is not located directly on the bore body of the throttle body.

First, “control module” 2 is not a separate control unit – let alone the recited *engine* control unit (defined in the present specification as a unit “which controls fuel injection and ignition timing of an internal combustion engine”). Instead, the module 2 is simply a part *within* the air flow sensor 13 (a so-called “hot-wire” sensor) which determines air flow based on the amount of heat removed from a heat resistor 4 by the air in the throttle bore. Hirayama at 3:43-61. Thus, Hirayama fails to disclose the present invention’s “engine control unit *for controlling the engine.*”

In addition, Hirayama fails to disclose the present invention’s engine control unit base “disposed on the bore body such that no electrical or mechanical components are located between the engine control unit electronic circuit and a surface of the bore body receiving the engine control unit base.” As shown in Hirayama Fig. 1, the body/mounting flange of the air flow sensor 13 is disposed between the Hirayama bore body and the air flow sensor housing containing its electronics 2. Rather than enhancing heat transfer to the high heat capacity throttle bore body, Hirayama teaches a configuration apparently designed to enhance *isolation* of the air flow sensor’s electronics from the bore body.

Because neither Irihune nor Hirayama disclose all the features of the present invention recited in the present claims, the claims are patentable over these references under § 102(e). Accordingly, reconsideration and withdrawal of the pending § 102(e) rejections is respectfully requested.

CONCLUSION

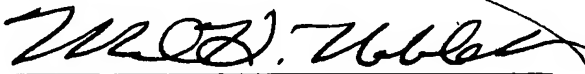
In view of the foregoing amendments and remarks, the Applicant respectfully submits that claims 1-13 are in allowable form. Early and favorable consideration and issuance of a Notice of Allowance for these claims is respectfully requested.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #056208/52953US).

November 22, 2004

Respectfully submitted,



James F. McKeown
Registration No. 25,406
Mark H. Neblett
Registration No. 42,028

CROWELL & MORING, LLP
P.O. Box 14300
Washington, DC 20044-4300
Telephone No.: (202) 624-2500
Facsimile No.: (202) 628-8844